

JAPANESE

[JP,05-078486,U]

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CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE  
INVENTION MEANS EXAMPLE DESCRIPTION OF DRAWINGS DRAWINGS

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[Translation done.]

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**CLAIMS**

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[The scope of a claim for utility model registration]

[Claim 1] A nail feeding mechanism of a nailer characterized by comprising the following.

While supplying compressed air from a main chamber which stored compressed air to a main valve which controls a drive of a strike piston in a stroke cylinder, A trigger valve for starting which makes compressed air supplied to said main valve based on operation of a trigger lever by manual operation, and an operation of a contact member by contact operation to material for itself to be devoted exhaust, and operates said main valve so that said strike piston may be made to drive.

A feeding piston cylinder mechanism which supplies a head nail of a connection nail to a blow position by supplying compressed air which went via said trigger valve in the back end of said feeding cylinder in a feeding piston always energized by retreat direction in a feeding cylinder. A contact valve which carries out the supply operation of the compressed air which went via said trigger valve in the back end of said feeding cylinder by operation of said contact member. between said trigger valve and contact valves -- hand control -- a trigger valve and a contact valve -- intermittence -- while arranging operational, compressed air supplied to a contact valve at the time of interception is exhausted -- increasing and striking -- a valve.

[Claim 2] Spring force energized to a non operation position which increase carried out and struck, a valve's increased, struck, and was accommodated [ aforementioned ] in a valve cylinder, and which increases, strikes and connects a trigger valve and a contact valve to a valve stem is made to give, And when operated in an actuated valve position which intercepts said connection, while carrying out self-hold to a connection blockage position by compressed air supplied via a trigger valve, A nail feeding mechanism of said nailer according to claim 1 which carries out an auto return to the above-mentioned non operation position according to said spring force in connection with compressed air from a trigger valve being exhausted.

[Claim 3] Increase carries out and strike, and the aforementioned increase uses a valve cylinder, strike, and a piston separate from a valve stem is accommodated [aforementioned], A nail feeding mechanism of said nailer according to claim 1 which increase carries out a part of compressed air supplied in a feeding cylinder via said contact valve, strikes it, makes it aforementioned introduce in a valve cylinder, increase carries out said piston, strikes it, makes it aforementioned engage with a valve stem, and makes intermittence operation impossible.

[Claim 4] Said contact valve carries out spring energization of the contact valve stem accommodated in a contact valve cylinder to an unactuated position, And when operation of said contact member is interlocked with and it moves to an actuated position, while making an actuated position carry out self-hold by compressed air which went via said trigger valve, A nail feeding mechanism of said nailer according to claim 1 forming a portion of play in engagement between a contact valve stem and a contact member.

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**DETAILED DESCRIPTION**

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[Detailed explanation of the device]

[0001]

[Industrial Application]

This design is related with the nail feeding mechanism of the nailer which is switched to the mode, moreover increase in number, strikes [ it increases at any time and strikes, and ], and returns to automatic nail delivery mode after an end while it can usually supply a nail automatically.

[0002]

[Description of the Prior Art]

Since it generates that some nails which devote themselves at the time of the blow of a nail, and include a head from the surface of material for itself to be devoted with shortage float in comparatively many cases if it is generally in the nailer driven in to a steel plate, concrete, etc., it is necessary to increase and to carry out \*\*\*\*. It increases and \*\*\*\* is adding a re-blow to the nailhead part which accommodated in nose the nail which floated in the state a new nail not being supplied to the nose of the nailer, carried out no-load striking \*\*\*\*\* of the nailer, and floated.

[0003]

In the nailers for [ usual ] concretes etc., it increases, and the method according [ supply of a nail ] to manual operation is adopted so that \*\*\*\* may be possible. This method carries out nail feeding operation by operating the nail delivery control lever arranged near the grip which grasps a tool, and supplying exhaust air to the cylinder for nail delivery. However, it was troublesome to have operated a control lever etc. at every nailing lump, and to have supplied a nail, and it had become a cause which spoils workability.

[0004]

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**TECHNICAL FIELD**

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[Industrial Application]

This design is related with the nail feeding mechanism of the nailer which is switched to the mode, moreover increase in number, strikes [ it increases at any time and strikes, and ], and returns to automatic nail delivery mode after an end while it can usually supply a nail automatically.

[0002]

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**PRIOR ART**

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**[Description of the Prior Art]**

Since it generates that some nails which devote themselves at the time of the blow of a nail, and include a head from the surface of material for itself to be devoted with shortage float in comparatively many cases if it is generally in the nailer driven in to a steel plate, concrete, etc., it is necessary to increase and to carry out \*\*\*\*. It increases and \*\*\*\* is adding a re-blow to the nailhead part which accommodated in nose the nail which floated in the state a new nail not being supplied to the nose of the nailer, carried out no-load striking \*\*\*\*\* of the nailer, and floated.

[0003]

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**EFFECT OF THE INVENTION**

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[An operation of a device, an effect]

When according to said composition it increased, and it strikes and a valve is set as a non operation position, via a trigger valve, compressed air increases, is struck, and is supplied to the contact valve via the valve. At this time, a feeding piston is in a retreated location.

[0012]

If a contact member is made to contact material for itself to be devoted and relative displacement is carried out at the time of nail placing, the compressed air which the contact valve operated and went via the trigger valve in the back end of the feeding cylinder will be supplied, a feeding piston will drive, and nail delivery will be performed to a blow position.

[0013]

In this case, if a contact valve stem constitutes so that an actuated position may be made to carry out self-hold in an operation of the compressed air which went via the trigger valve in the contact valve cylinder, Even if it is again operated after a contact member moves caudad after that, the contact valve stem does not operate, and nail delivery is not performed, either.

Therefore, causing a poor operation is effectively prevented by supplying two nails by force in a nose part.

[0014]

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**MEANS**

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**[Means for Achieving the Goal]**

In order to attain said purpose, a nail feeding mechanism of a nailer concerning this design, While supplying compressed air from a main chamber which stored compressed air to a main valve which controls a drive of a strike piston in a stroke cylinder, A trigger valve for starting which makes compressed air supplied to said main valve based on operation of a trigger lever by manual operation, and an operation of a contact member by contact operation to material for itself to be devoted exhaust, and operates said main valve so that said strike piston may be made to drive, A feeding piston cylinder mechanism which supplies a head nail of a connection nail to a blow position by supplying compressed air which went via said trigger valve in the back end of said feeding cylinder in a feeding piston always energized by retreat direction in a feeding cylinder, Compressed air which went via said trigger valve in the back end of said feeding cylinder by operation of said contact member between a contact valve which carries out a supply operation, and said trigger valve and a contact valve, hand control -- a trigger valve and a contact valve -- intermittence -- while arranging operational, it is characterized by a thing which exhaust compressed air supplied to a contact valve at the time of interception and for which it increased, and it struck and had a valve.

[0008]

Spring force energized to a non operation position which increase carried out and struck, a valve's increased, struck, and was accommodated [ aforementioned ] in a valve cylinder, and which increases, strikes and connects a trigger valve and a contact valve to a valve stem is made to give, And when operated in an actuated valve position which intercepts said connection, self-hold is carried out to a connection blockage position by compressed air supplied via a trigger valve.

It may have composition which carries out an auto return to the above-mentioned non operation position according to said spring force in connection with compressed air from a



trigger valve being exhausted on the other hand.

[0009]

Increase carries out and strike, and the aforementioned increase uses a valve cylinder, strike, and a piston separate from a valve stem is accommodated [ aforementioned ], It may have composition which increase carries out a part of compressed air supplied in a feeding cylinder via said contact valve, strikes it, makes it aforementioned introduce in a valve cylinder, increase carries out said piston, strikes it, makes it aforementioned engage with a valve stem, and makes intermittence operation impossible.

[0010]

Said contact valve carries out spring energization of the contact valve stem accommodated in a contact valve cylinder to an unactuated position, And when operation of said contact member is interlocked with and it moves to an actuated position, while making an actuated position carry out self-hold by compressed air which went via said trigger valve, it is preferred to form a portion of play in engagement between a contact valve stem and a contact member.

[0011]

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**EXAMPLE**

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[Example]

Hereafter, when a drawing explains the example of this design, drawing 1 shows a nailer and this nailer, Based on the operation and the length operation of the trigger lever 2 which carry out relative displacement to the main part A of a nailer by making the material P for itself to be devoted carry out contact operation of the lower end 1b of the contact member 1, operate the trigger valve 3 for starting, and the strike piston 5 in the stroke cylinder 4 is made to drive, With the driver 6 combined with the strike piston 5, the nail in the nose part 7 is turned to the material P for itself to be devoted, and is hammered out, and the above-mentioned blow mechanism is publicly known.

[0025]

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**DESCRIPTION OF DRAWINGS**

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**[Brief Description of the Drawings]**

[Drawing 1] It is an outline explanatory view of the nailer concerning this design.

[Drawing 2] It is a section explanatory view in the automatic nail delivery mode of the nail feeding mechanism of the above-mentioned nailer.

[Drawing 3] In the above-mentioned nail feeding mechanism, it is an operation mode explanatory view at the time of operating a contact member.

[Drawing 4] In the above-mentioned nail feeding mechanism, it is an operation mode explanatory view at the time of operating a trigger lever further.

[Drawing 5] It is a section explanatory view [ in / it increases and strikes and / the mode ] of the above-mentioned nail feeding mechanism.

[Drawing 6] In the above-mentioned nail feeding mechanism, it is an operation mode explanatory view at the time of operating a contact member.

[Drawing 7] In the above-mentioned nail feeding mechanism, it is an operation mode explanatory view at the time of operating a trigger lever further.

**[Description of Notations]**

A The main part of a nailer

1 Contact member

2 Trigger lever

3 Main valve

4 Stroke cylinder

5 Strike piston

13 Main valve

14 Main chamber

17 Feeding piston cylinder mechanism

18 Contact valve

- 19 Increase and strike and it is a valve.
- 20 Feeding cylinder
- 21 Feeding piston
- 23 Contact valve stem
- 26 Increase and strike and it is a valve cylinder.
- 27 Increase and strike and it is a valve stem.
- 29 Piston

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[Translation done.]

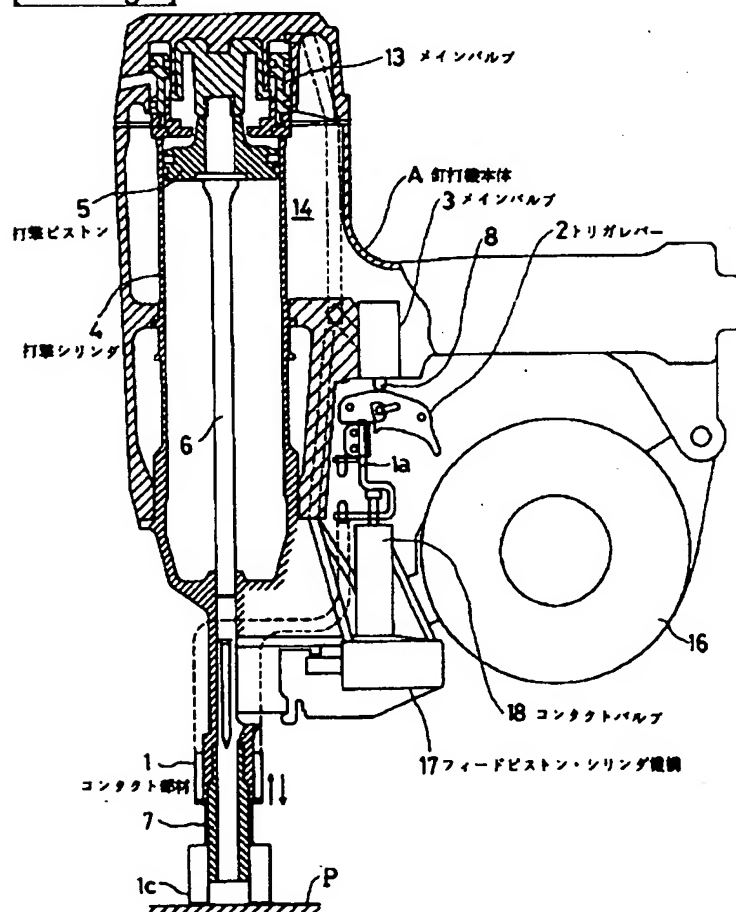
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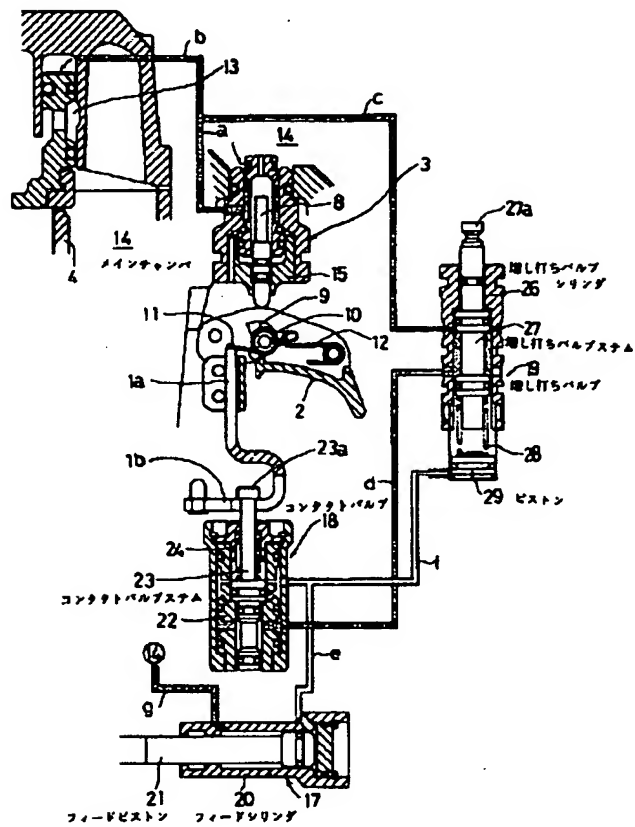
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## DRAWINGS

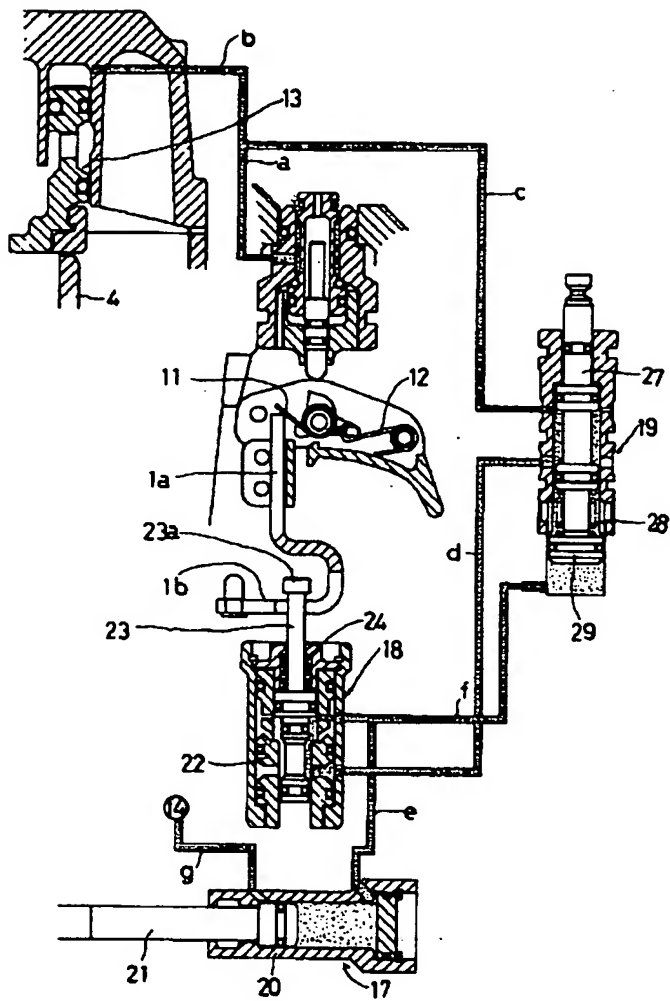
[Drawing 1]



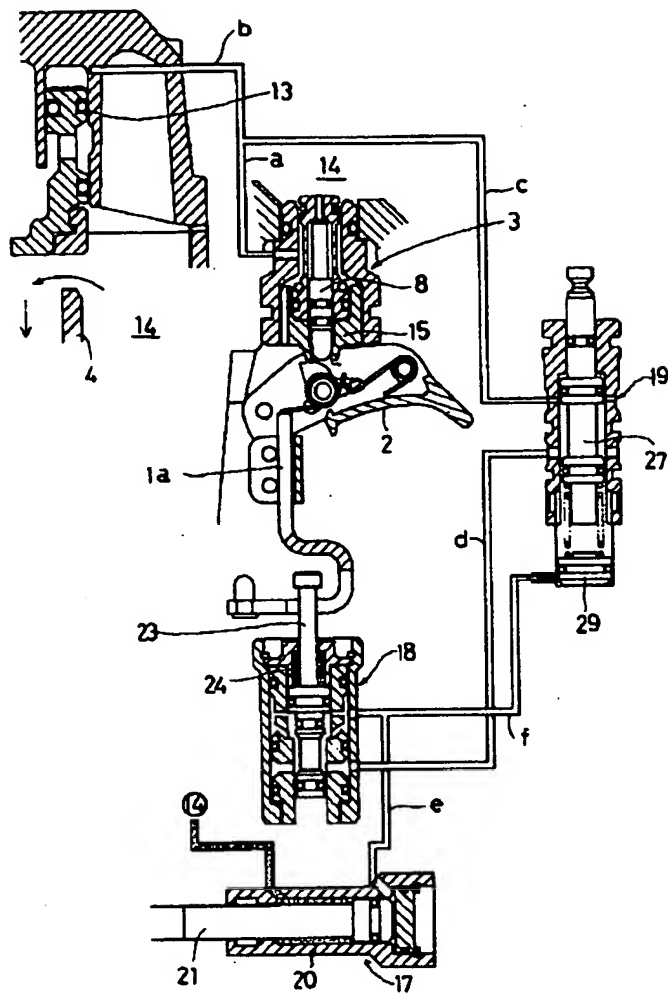
[Drawing 2]



[Drawing 3]

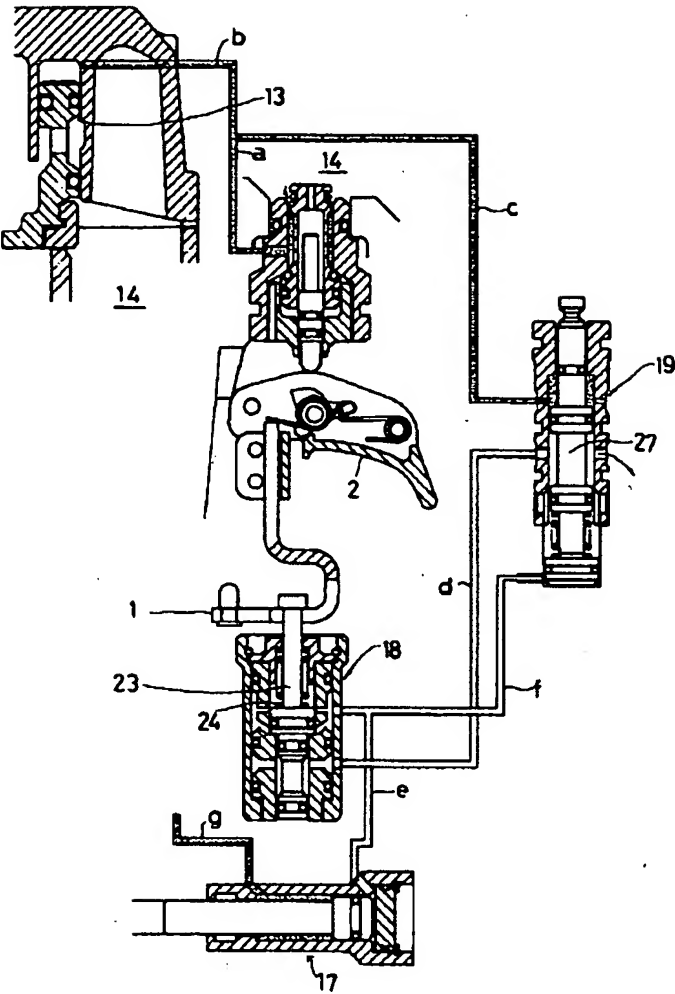


[Drawing 4]

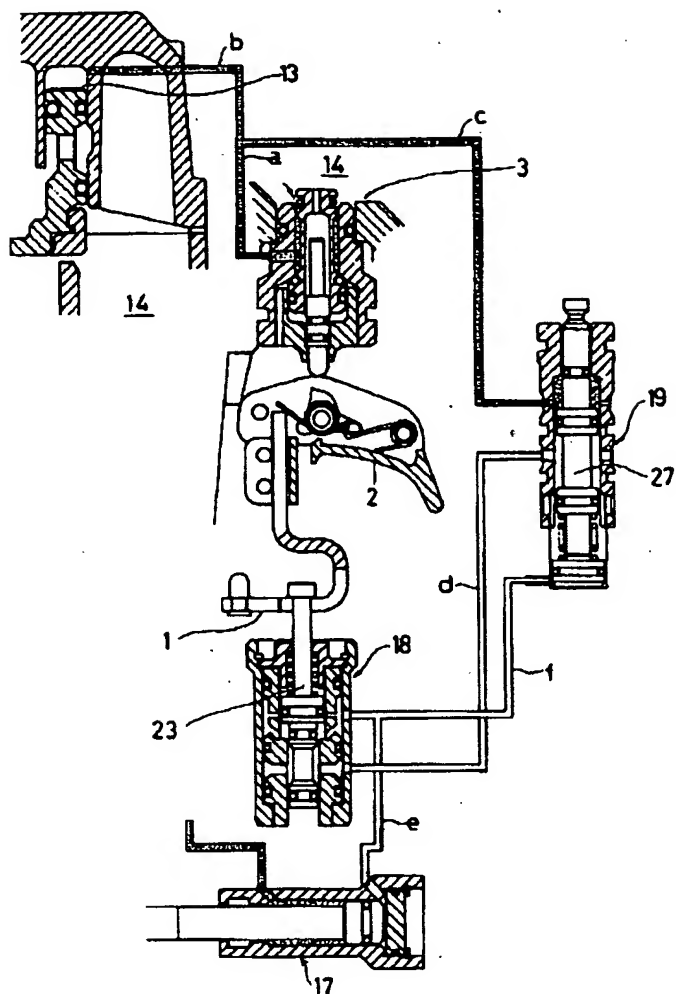


[Drawing 5]

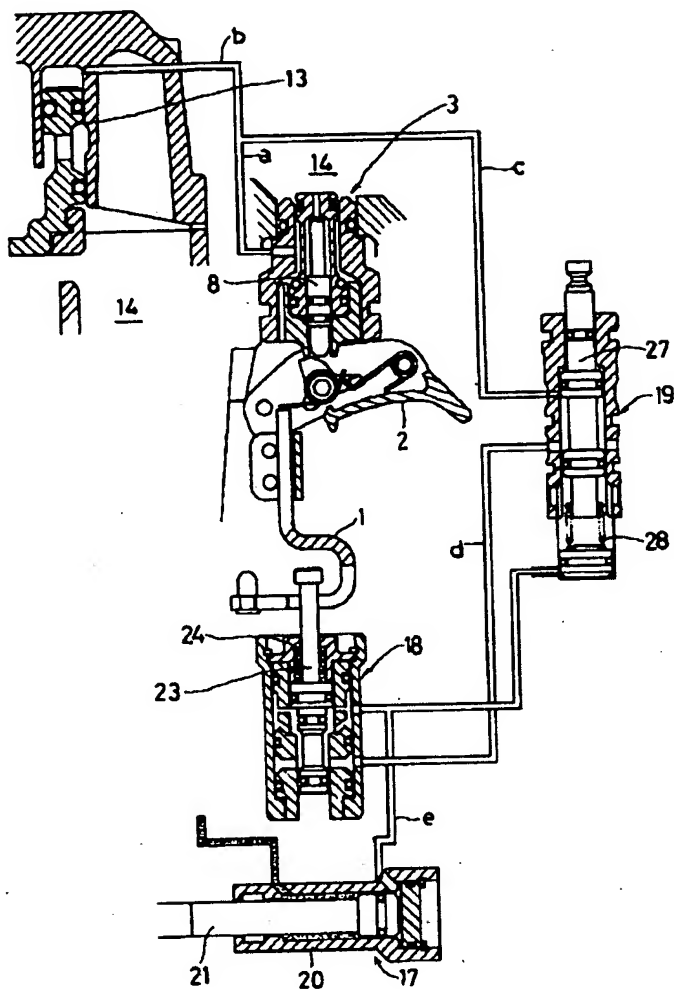




[Drawing 6]



[Drawing 7]



[Translation done.]